

FS MARIA S. MERIAN, Fahrt MSM04/1  
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Fort de France – Fort de France



### **Second Weekly Report, period 08.12.-14.12.2006**

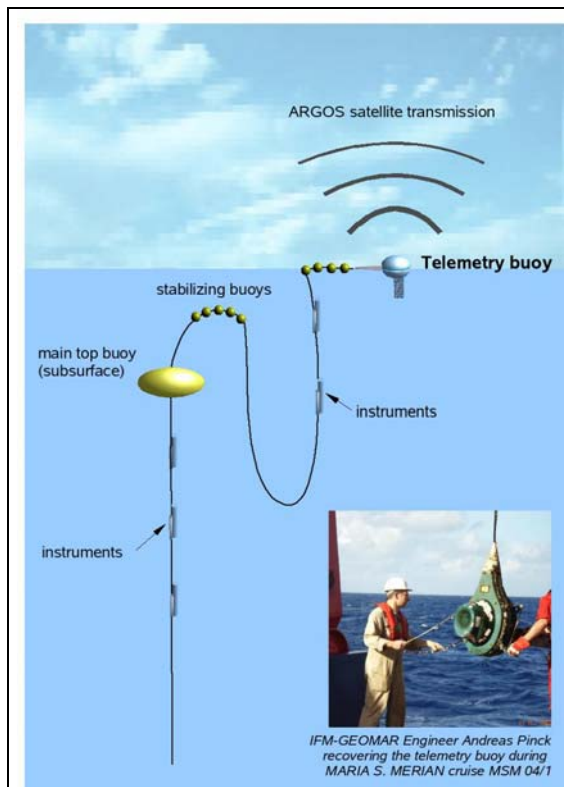
On 8<sup>th</sup> December we reached the northernmost position at 20.5°N, 056.5°W where we tried to read out acoustically the data of the second PIES. Like the first one, also this one did not transfer any data. Therefore, we decided to recover the instrument. During inspection in the laboratory, it quickly became clear that the battery package for the measurement circuit had broken down after only 6 months. As the manufacturer confirmed, this is now known to happen with instruments from this series after several months of measurements due to a systematic malfunction in the battery power circuit.

On 11<sup>th</sup> December we reached the eastern work area around M1 on the western flank of deep basin at the Mid Atlantic Ridge. At M1, the geostrophic mooring was recovered. IFM-GEOMAR engineer **Andreas Pinck**, electronics technician **Rudolf Link** and mooring technician **Gerd Niehus** are proud that all instruments and mooring components had worked continuously for 19 months until recovery. This includes for such a long time the telemetry and the tomography receiver. The PIES after recovery showed the now known problems; it was recovered, also all three transponders. On 12<sup>th</sup> December, the geostrophic mooring for the SIO was launched. We are now on the almost zonal CTD section towards Guadeloupe, and just have recovered the PIES at 15.75°N, 054.21°W.

The ship's track can be followed in the internet ([www.sailwx.info](http://www.sailwx.info), call sign DBBT).

At sea, 14-Dec-2006

Thomas J. Müller  
Principal Scientist MSM04/1



#### **Telemetry Buoy Principle**

In this type of telemetry mooring, data from instruments moored in the deep sea are transferred inductively using the steel mooring wire. The telemetry buoy stores transferred data and transfers a reduced set in regular intervals via satellite to IFM-GEOMAR where scientists in charge check and process them. The inset photo shows IFM-GEOMAR engineer Andreas Pinck taking care of his telemetry 'baby' on mooring M1 after 19 months continuous data transmission.